

DEMUSENKO, P. M.

Demusenko, P. M. "Raising sub-soil varieties of tomatoes by sowing seeds in the soil and seedlings (sprouts)." Trudy nauch.-issled. in-ta kholz.-va, Vol. I, 1948, p. 70-87 - Bibliog: 9 items

SO: U-3264, 10 April 1953, (Letopis 'Zhurnal 'nykh Statey, No. 3, 1949)

DEMUSENKO, P. M., SEVAST'YANDVA, M. I.

Grasses

Sowing grass mixtures without companion crops in a system of vegetable and grass crop rotation. Sad. i. og., No. 6, 1952.

9. Monthly List of Russian Accessions, Library of Congress, _____ 1953. Unclassified.

DEMUSENKO, Panteleymon Martynovich, kandidat sel'skokhozyaystvennykh nauk;
SUKHAREVA, Tamara Timofeyevna, kandidat sel'skokhozyaystvennykh nauk;
KAZAKOVA, Ye.D., redaktor; ZUBRILINA, Z.P., tekhnicheskiy redaktor

[Work practice of vegetable growers at the all-Union Agricultural
Exhibition] Iz opyta raboty ovoshchegovodov - uchastnikov Vsesoiuznoi
Sel'skokhoziaistvennoy Vystavki. Moakva, Gos. izd-vo selkhoz. lit-
ry, 1956. 71 p. (Vegetable gardening) (MLRA 9:11)

DEMUSENKO, V. I.

KVASNIKOV, B. V., OSNITSKA A. E. A. and DEMUSENKO, V. I. "On Resistance of Gauze
Verities to Club Root," Sad i Okorod, no. 6, 1950, pp. 51-53 80 Sal 3

DEMUSHKIN, A.I.

Electric foot warmers for work in winter. Avt.dor. 22[1.e.23]
no.9:32 S '60. (MIRA 13:9)
(Electric heating) (Clothing, Cold weather)

BOL'SHAKOV, V.D.; MIKHEYECHEV, V.S.; DEMUSHKIN, A.I.

Results of tests of the ST-61 topographic geodimeter. Geod. i kart.
no.5:17-21 My '62. (MIRA 15:7)
(Geodimeter)

DEMUSHKIN, A.I.; PRILEPIN, M.T.; FEL'DMAN, G.A.

SDD geodimeter. Geod. i kart. no. 9:20-26 S'62. (MIRA 15:10)
(Geodimeter)

VIROVETS, Yu.B.; DEMUSHKIN, A.I.; PRILEPIN, M.T.

Testing an experimental model of the SDD geodimeter. Geod.i
kart. no.10:8-14 0 '62. (MIRA 15:12)
(Geodimeter--Testing)

ACCESSION NR: AP4020396

S/0006/64/000/003/0017/0023

AUTHORS: Bol'shakov, V. D.; Demushkin, A. I.; Mikhayevich, V. S.

TITLE: Production trials of the light telemeter ST-61 in 1962

SOURCE: Geodeziya i kartografiya, no. 3, 1964, 17-23

TOPIC TAGS: light telemetry, surveying, quartz resonance, radio telemetry, radio triangulation, radio cartography, geodesic instrumentation, light telemeter ST 61

ABSTRACT: The authors continued performance trials of the light telemeter ST-61. Modifications of the instrument were made to increase the frequency modulation band width to 1.5 megacycles and to diminish errors in determining modulation frequencies. Field measurement tests were performed to find the relation of line length and relative mean quadratic error, and the results were tabulated. It was determined that an absolute mean quadratic error of ± 2.6 cm of length corresponds to a line length of from 0.14 to 4.0 km. The relative mean quadratic error for lines from 3.8 to 9.0 km in length was found not to exceed 1 : 39 000. Comparisons with conventional chaining methods indicate that the ST-61 is five times faster and yields a productivity fifteen times greater. A student group from MIIZ as well as

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ACCESSION NR: AP4020396

Ye. V. Gromov of Mosoblgeoprojekt participated in the measurements. Orig. art.
has: 5 figures, 5 tables, and 3 equations.

ASSOCIATION: Ukrainskaya kompleksnaya geologomarksheyderskaya ekspeditsiya
(Ukrainian Combined Geological-Surveying Expedition)

SUBMITTED: 00

ENCL: 00

SUB-CODE: EC, ES

NO REF Sov: 001

OTHER: 000

Card 2/2

BOL'SHAKOV, V.D.; DEMUSHKIN, A.I.; MIKHEYECHEV, V.S.

Production tests of a ST-61 goodimeter in 1962. Geod. i kart.
no.3:17-23 Mr '64. (MIRA 17:9)

DEMUSHKIN, I., prof.

Book on the electric equipment of the dredging and maintenance
fleet. Mor. flot 25 no.2:45 F '65.

(MIRA 18:4)

1. Kafedra "Elektronika" Severo-zapadnogo zaochnogo politekhnicheskogo instituta.

L 01316-67 EWP(k)/EWT(d)/EWT(l)/EWP(h)/EWP(l)/EWP(v) TT/AT
ACC NR: AP6015027 (A) SOURCE CODE: UR/0144/66/000/004/0385/0393

AUTHOR: Demushkin, I. I.

46
B

ORG: none

TITLE: Some design parameters of high-speed d-c generators ²⁵

SOURCE: IVUZ. Elektromekhanika, no. 4, 1966, 385-393

TOPIC TAGS: electric generator, dc generator, dc generator design

ABSTRACT: Based on the tests of seventeen 11-331-kw, 2400-4000-rpm generators built by "Elektrosila," "MetroVick," Brown Boveri, GE, and other manufacturers, parameters, tables, and curves are offered as material which may help in designing such machines.¹⁴ The Arnold "machine constant" of such generators was found to vary widely. From peripheral-velocity-vs.-kw plots and a commutation formula, it is inferred that the armature diameter should be selected as a maximum permissible by the peripheral velocity. Recommendations are also given for selecting the values of the percent enclosure of the pole (pole-arc-to-pole-pitch ratio), airgap magnetic induction, armature "linear loading" (amps per cm), and optimal armature diameter-to-length ratio. Orig. art. has: 5 figures and 10 formulas.

SUB CODE: 09 / SUBM DATE: 15Jul63 / ORIG REF: 004

me
Card 1/1

UDC: 621.313 $\frac{1}{2}$ + 621.318.3

DEMUSHKIN, S. P., Cand Phys-Math Sci (diss) -- "A group of maximal p-distribution of a local field". Moscow, 1959. 4 pp (Acad Sci USSR, Math Inst im V.A. Steklov), 160 copies (KL, No 9, 1960, 122)

16(1) 16.12.00

AUTHORS: Demushkin, S.P., Shafarevich, I.R. SOV/38-23-6-3/11

TITLE: Embedding Problem for Local Fields

PERIODICAL: Izvestiya Akademii nauk SSSR, Seriya matematicheskaya, 1959,
Vol 23, Nr 6, pp 823 - 840 (USSR)

ABSTRACT: The authors investigate conditions under which a given finite normal extension k/\mathbb{Q} with the Galois group F can be embedded into a larger extension K/\mathbb{Q} with the Galois group G , whereby the given epimorphic mapping $\psi : G \rightarrow F$ is realized as homomorphism of the Galois group of the field onto the Galois group of the subfield. The authors suppose the kernel A of ψ to be abelian. By means of the fundamental properties of the cohomology groups of local fields (of finite extensions of the field of p -adic numbers) the authors show that the conditions of D.K. Faddeyev [Ref 3] and H. Hasse [Ref 4], which are only necessary for the solubility of the considered embedding problem, are also sufficient in the case of local fields. From this it follows that in the case of an algebraic number field k/\mathbb{Q} the conditions of Faddeyev - Hasse are equivalent to the solubility of all corresponding p -adic embedding problems for fields k_p/\mathbb{Q}_p

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Embedding Problem for Local Fields

SOV/38-23-6-3/11

and for all prime divisors p .

Altogether there are 4 theorems and 2 lemmata.

There are 4 figures, and 5 references, 1 of which is Soviet,
3 German, and 1 American.

SUBMITTED: June 18, 1959

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16(1)

AUTHOR: Demushkin, S.P.

SOV/20-128-4-5/65

TITLE: The Group of the Maximal p-Extension of a Local Field

PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol 128, Nr 4, pp 657-660(USSR)

ABSTRACT: Let K be the union of all finite normal p -extensions of a local field Ω and \mathcal{O} be the group of K over Ω . The group is the projective limit of the set of finite p -groups, i.e. it is a topological p -group. Let γ be the degree of Ω over the local rational field R . If Ω contains the p -th root of 1 and if $p \neq 2$, then \mathcal{O} is a group with $v = \gamma + 2$ generators which satisfy a relation [Ref 2]. Let $q = p^m$ ($m \geq 1$) be the maximal p -power of the root ζ_q of 1; $\zeta_q \in \Omega$.

Theorem: If the field Ω contains the q -th root of 1 and if $p \neq 2$, then \mathcal{O} is isomorphic with v generators $\sigma_1, \sigma_2, \dots, \sigma_v$ which only satisfy the relation

$$(1) \quad \sigma_2^q [\sigma_1, \sigma_2] [\sigma_3, \sigma_4] \cdots [\sigma_{v-1}, \sigma_v] = 1.$$

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The Group of the Maximal p-Extension of a Local Field SOV/20-128-4-5/65

The author thanks I.R.Shafarevich for the leading.
There are 3 references, 2 of which are Soviet, and 1 Japanese.

ASSOCIATION: Matematicheskiy institut imeni V.A.Steklova Akademii nauk SSSR
(Mathematical Institute imeni V.A.Steklov of the AS USSR)

PRESENTED: June 3, 1959, by I.M.Vinogradov, Academician

SUBMITTED: May 21, 1959

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DEMUSHKIN, S.P.

Group of maximum p-extensions of a local field. Izv. AN SSSR.
Ser. mat. 25 no.3:329-346 My - Je '61. (MIRA 14:6)
(Topology)

DEMUSHKIN, S.P.; SHAFAREVICH, I.R.

Second obstacle to solving the problem of imbedding of fields of
algebraic numbers. Izv.AN SSR.Ser.mat. 26 no.6:911-924 N-D '62.
(MIR 15:12)
(Algebraic topology)

DEMUSHKIN, S.P.

Immersion problem for fields of algebraic numbers. Dokl.AN SSSR
144 no.1:27-28 My '62. (MIRA 15:5)

1. Matematicheskiy institut im. V.A.Steklova AN SSSR.
Predstavлено академиком I.M.Vinogradovym.
(Fields, Algebraic)

DEMUSHKIN, S.P.

On 2-extensions over a local field. Sib. mat. zhur. 4 no.4:951-955
Jl-Ag '63. (MIRA 16:9)

DEMUSHKIN, S.P.

Topological 2-groups with an even number of generatrices and
one complete determining correlation. Izv. AN SSSR. Ser. mat
29 no.1:3-10 '65. (MIRA 18:4)

"APPROVED FOR RELEASE: 06/12/2000

CIA-RDP86-00513R000310110014-0

DENISHEVSKY, V. A.

Dissertation: "Vetulzhskiy Basin (Physicogeographic Features)." Cand Geog Sci, Moscow City Pedagogical Inst imeni V. P. Potemkin, 29 May 54. Vechernaya Moskva, Moscow, 20 May 54.

SO: SUM 284, 26 Nov 1954

APPROVED FOR RELEASE: 06/12/2000

CIA-RDP86-00513R000310110014-0"

KOLENKOIN, A.A., dots.; KURAZOV, N.F., dots.; MIMISHKIN, V.A., kand. geogr. nauk; NIKOLAEV, B.L., tekhn. red.

[Programs of pedagogical institutes; practical work in regional studies for geography faculties of pedagogical institutes] Programmy pedagogicheskikh institutov; praktikum po kraevedcheskoj работе для географических факультетов педагогических институтов.
[Moskva] Uchpedgiz, 1956. 5 p. (MIRA 11:9)

1. Russia (1917- R.S.F.S.R.) Glavnoye upravleniye vysshikh i srednikh pedagogicheskikh uchebnykh заведений.
(Geography--Study and teaching)

VASILENKO, S.K.; DEMUSHKIN, V.P.; BUDOVSKIY, E.I.; KNORRE, D.G.

Determination of nucleotide sequence in oligonucleotides.
Dokl. AN SSSR 162 no.3:694-697 My '65. (MIRA 18:5)

1. Novosibirskiy institut organicheskoy khimii Sibirskogo otdeleniya
AN SSSR i Institut khimii prirodnykh soyedineniy AN SSSR. Submitted
August 4, 1964.

BUDOVSKIY, I.I.; DEMUSHKIN, V.P.

Separation of oligonucleotides. Birkhemia 29 no.6:1063-1069
M-6 1964. (MIRA 18:12)

I. Institut khimii prirodnykh soyedineniy AN SSSR, Moskva.
Submitted March 5, 1964.

SEREБRYAKOV, Mikhail Yevgen'yevich. Prinimali uchastiye: VOROB'YEV,
P.A., kand. tekhn. nauk; SIROTINSKIY, V.F., kand. tekhn. nauk;
YEGOROV, V.S., kand. tekhn. nauk; DMITRIYEVSKIY, A.A., doktor
tekhn. nauk, prof., retsenzent; USTINOV, V.F., kand. tekhn.
nauk, dots., retsenzent; DEMUSYAK, A.G., inzh., nauchnyy red.;
MOROZOVA, P.B., red. izd-va; KARPOV, I.I., tekhn. red.

[Interior ballistics of barrel systems and powder rockets]
Vnutrenniaia ballistika stvol'nykh sistem i porokhovykh raket.
3. izd., dop. i perer. Moskva, Oborongiz, 1962. 703 p.
(MIRA 15:12)

(Ballistics, Interior)

VINOPAL, M., inz.; ECKERTOVA, L., doc. dr.; DEMUTH, M., inz.

Method of gas pressure measurement in closed vacuum systems.
Automatizace 6 no.12:314 D '63.

KOCHETKOV, N.K.; BUDOVSKIY, E.I.; TURCHINSKIY, M.F.; DEMUSHKIN, V.P.

Primary structure of RNA. Specific splitting of ribonucleic acid. Dokl. AN SSSR 152 no.4:1005-1008 O '63. (MIRA 16:11)

1. Institut khimii prirodnykh soyedineniy AN SSSR.
2. Chlen-korrespondent AN SSSR (for Kochetkov).

DEMUT, Osval'd

Lebesgue integration in constructive analysis. Dokl. AN SSSR 160
no.6:1239-1241 F '65.
(MIRA 18:2)

1. Moskovskiy gosudarstvennyy universitet. Submitted November 11,
1964.

POLOVIN, R.V.; DEMUTSKIY, V.P.

[Shock adiabats in magnetohydrodynamics] Udarnaia
adiabata v magnitnoi gidrodinamike. Khar'kov, Fiziko-
tekhn. in-t AN USSR, 1960. 25-34 p. (MIFI A 17:2)

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10.8000

26.1410

S/185/60/005/001/001/018
A151/A029

AUTHORS: Polovin, R.V.; Demutskiy, V.P.

TITLE: The Shock Adiabatic in Magnetic Hydrodynamics.

PERIODICAL: Ukrayins'kyy Fizychnyy Zhurnal, 1960, Vol. 5, No. 1, pp. 3 - 11

TEXT: The aim of this paper is the investigation of the evolutionary parts of a shock adiabatic within the limiting conditions of low-intensity shock waves, as well as of the "almost parallel" and "almost perpendicular" shock waves of an arbitrary intensity. The authors state that in the case of low-intensity shock waves, the inequalities (4) and (5) follow from the limiting conditions and Tsemplen's [ABSTRACTOR'S NOTE: The name Tsemplen is given as it appears in the Ukrainian transliteration] theory (see Refs. 10, 8, 11, 12). The inequalities (4) and (5) mean that the low-intensity shock waves are always evolutionary, i.e., resistant to splitting. As to that shock wave, which in the limiting case $\Delta \rho \rightarrow 0$ turns into an "al'fvenovs'ka" [ABSTRACTOR'S NOTE: the word "al'fvenovs'ka" is given in the Ukrainian transliteration, since no English equivalent could be found] shock wave it may be said that it is always non-evolutionary. Such a shock should not be confused with an "al'fvenovs'kyy" discontinuity, in which $\Delta \rho = 0$ and the magnetic

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The Shock Adiabatic in Magnetic Hydrodynamics.

field turns around the normal at a certain angle not changing its value. The "al'fvenovs'kyy" discontinuity is always evolutionary (Ref. 5). The following two types of shock waves are possible in the case when in front of the shock wave the magnetic field is directed along the normal toward the surface of the discontinuity (Ref. 6): 1) the "sonic" shock wave, in which $H_{2y} = 0$, 2) a particular shock wave, in which $H_{2y} \neq 0$ (Ref. 10). On the sonic shock wave, the correlations between the jumps of the magneto-hydrodynamic values are such as they appear in the absence of the magnetic field. The presence of a normal magnetic field, however, narrows the evolution zone (Ref. 5). In the plane (v_{1x}, v_{2x}) the sonic shock wave is represented by the line abcg in Figure 1, and by the line fg in Figure 3. (The Figures 1,2 correspond to the case $v_{1x} > c_1$, the Figures 3,4 - to the case $v_{1x} < c_1$). The continuous line corresponds to the evolutionary part of the adiabatic, the interrupted or dotted line to the non-evolutionary one. (In Figs. 1, 3, 5 the evolution zones are shaded. They are limited by the lines given by A.I. Akhiyezen, H.Ya. Lyubarskyy and R.V. Polovyn, (Ref. 5): $v_{1x} = u_1^+$; $v_{1x} = v_{1x}$; $v_{2x} = u_2^+$; $v_{2x} = v_{2x}$. In the plane (p_1, p_2) , the sonic shock adiabatic is depicted in Figure 2 by the line abfg, in Figure 4 by the line fg. In Figure 1, the particular shock wave adiabatic lies between the infinitely close lines cd and ef, in Figure 3 between the lines bcd and de. The particular shock adiabatic is represented by the line ef in Figure 2, and by the line cd in Figure 4. It should be noted that

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The Shock Adiabatic in Magnetic Hydrodynamics.

the particular shock wave lies on the border of the evolution zone and is non-evolutionary. If the inequalities (10) are accomplished, the sonic shock adiabatic changes in the sections ab and fg (Fig. 1) infinitely little as compared to the case $H_{1y} = 0$. The particular shock adiabatic splits into two branches: the non-evolutionary branch cd and the evolutionary one ef (Fig. 1). Thus, in Figure 1, the "slow" adiabatic which corresponds to a slow magneto-sonic shock wave (Ref. 5) is represented by a continuous line ab, the "quick" adiabatic by the continuous line efg. In the plane $(\frac{1}{\rho_2}, p_2)$ (Fig. 2) the slow adiabatic is represented by the line ab, the quick one by the line efg. In the case when the inequalities (15) are accomplished, the shock adiabatic in the plane (v_{1x}, v_{2x}) is shown in Figure 3. The quick adiabatic is depicted by the line fg, the slow one by the line cd. Figure 4 shows the same shock adiabatic in the plane $(\frac{1}{\rho_2}, p_2)$. It should be pointed out that at $|H_{1y}| \ll |H_x|$, the quick adiabatic in the plane $(\frac{1}{\rho_2}, p_2)$ lies higher than the slow one. This means that in the quick shock wave a more intense heating takes place than in the slow one. In other words, in this case the quick shock wave proves to be more convenient from the thermodynamic point of view since the energy increase in it is higher. In the case when the inequalities (17) are accomplished, the shock adiabatic is represented in Figure 5 [plane (v_{1x}, v_{2x})] and in Figure 6 [plane $(\frac{1}{\rho_2}, p_2)$]. The quick adiabatic is represented by the line cd, the slow one by the line ab. It should be pointed out

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The Shock Adiabatic in Magnetic Hydrodynamics.

that in this case the quick shock adiabatic is located lower than the slow one. The difference in the mutual location of the quick and slow shock adiabatics in the instances (10), (15) and (17) may be explained in the following way. A transition of the kinetic energy $\frac{p_1 v_1^2}{2}$ into the magnetic energy $\frac{B_2^2}{8\pi}$ and thermal

energy $\frac{3}{2}p_2$ takes place. The high quantity of the energy transmitted corresponds to the quick shock wave. In cases (10) and (15) the magnetic energy practically does not change. In the case (17), the magnetic energy is subject to a considerable change. In quick shock waves of a high intensity ($\frac{p_2}{p_1} \gg 1$) the presence of the magnetic field is unimportant (Refs. 2 and 13). In particular, the largest compression which may be reached in a shock wave, equals four (for ideal gas with $\gamma = \frac{5}{3}$). The intensity of the slow shock wave cannot be as high as desired. Therefore, at $\frac{p_2}{p_1} > 1$, there exists only one shock adiabatic (Refs. 2 and 8) which is a quick one. It is pointed out that in all four cases investigated the graph of the shock adiabatic in the plane $(\frac{1}{p_2}, p_2)$ was convex. In closing, the authors express their sincere appreciation to O.I. Akhiyezer and G.Ya. Lyubars'kyy for useful advices. There are 6 figures and 14 references: 10 Soviet, 2 English and 2 German.

ASSOCIATION: Fizyko-Tekhnichnyy instytut AN UkrSSR (Physico-Technical Institute, AS UkrSSR).

3,2600 (2205)

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8/057/61/031/004/005/018
B125/B205

24.2120 (1049,1482,1502)

AUTHORS: Demutskiy, V. P. and Polovin, R. V.

TITLE: Impact ionization and detonation in magnetohydrodynamics

PERIODICAL: Zhurnal tekhnicheskoy fiziki, v. 31, no. 4, 1961, 419-427

TEXT: An astrophysical study has been made of the methods of impact ionization and detonation applied to the motion of a conducting body in a magnetohydrodynamic medium with any direction of the magnetic field. The energy of ionization has been taken into account. Reference is made to papers by E. Larish, I. Shekhtman, G. A. Lyubimov, and A. G. Kulikovskiy. The medium is considered to be a piston moving at a constant velocity \dot{u} . The velocity of the piston and the Alfvén velocity $U = H/\gamma B_0$ are assumed to be much smaller than the sonic velocity c , and the reaction energy referred to zero temperature to be much lower than the square of sonic velocity. The magnetic field, the velocity of the piston, and the normal onto its surface lie in one plane, i.e., the xy plane. When the shock wave of ionization propagates through a non-conductive medium, an electromagnetic wave runs in front of the ionization wave. But such a wave does

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not exist if the medium has been ionized from the very outset, and if the degree of ionization in the shock wave is enhanced. This case is the subject of the present paper. The tangential electric and the normal magnetic field remain constant.

$$\left\{ p + \frac{(v_x - \zeta)^2}{V} + \frac{H_y^2}{8\pi} \right\} = 0, \quad (2)$$

$$\left\{ \frac{\gamma p V}{1-\gamma} + \frac{(v_x - \zeta)^2}{2} + \frac{v_y^2}{2} + \frac{V H_y^2}{4\pi} - \frac{V H_x H_y v_y}{4\pi(v_x - \zeta)} \right\} = q, \quad (3)$$

$$\left\{ \frac{v_x - \zeta}{V} v_y - \frac{H_x H_y}{4\pi} \right\} = 0, \quad (4)$$

$$(H_x v_y - (v_x - \zeta) H_y) = 0, \quad (5)$$

$$(H_z) = 0, \quad (6)$$

hold, where $V = 1/q$ is the specific volume, and \vec{V} the velocity of the medium. The x-axis is perpendicular to the discontinuity surface, and the coordinate system is such that $H_z = 0$, $v_z = 0$. p denotes the pressure, and γ the coefficient of the Poisson adiabatic line which, for the sake

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of simplicity, is assumed to be equal on either side of the discontinuity surface. q is the amount of energy released on this surface. The detonation corresponds to $q > 0$, and the ionization to $q < 0$. A detonation or ionization exists only if the ionization or the detonation wave has a steady structure. In this way, Ya. B. Zel'dovich proved the existence of a wave without previous compression. The conditions for the development of a magnetohydrodynamic detonation or ionization wave of low intensity read: $\beta > U_{1+}$ (7) and $|v_{2x} - \beta| \leq U_{2+}$ (8), where β is the propagation velocity of the discontinuity, U_x the normal component of the velocity of the medium, U_+ and U_- the velocities of the fast and the slow magnetohydrodynamic wave, respectively: $U_+ = \frac{\{U^2 + c^2 + [(U^2 + c^2)^2 - 4c^2 U_x^2]\}^{1/2}}{2c}$. The indices 1 and 2 refer to the region behind and in front of the discontinuity, respectively. The signs + and - are to be used for fast and slow waves, respectively. The fast and the slow detonation wave correspond to the two propagation velocities of slight disturbances. If the velocity of the detonation wave relative to the reaction products is

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equal to or smaller than the propagation velocity of small disturbances, one has a detonation in the "Chapman-Jouguet" point (equality sign in (8)) and a "supercompressed" detonation, respectively (inequality in (8)). The conditions for the development of such waves limit the number of waves moving simultaneously in one direction. If a detonation in the Chapman-Jouguet point occurs on a fast wave, the detonation wave will be followed by a fast similarity-type wave, and the latter, in turn, will be followed by an Alfvén discontinuity; finally, there is a slow shock wave or a slow similarity-type wave. When a "supercompressed" detonation takes place on the fast shock wave, it may be followed by an Alfvén discontinuity and, subsequently, a slow shock wave or a similarity-type wave. If a "supercompressed" detonation occurs on a slow wave, a fast shock wave or a fast similarity-type wave will appear first, then an Alfvén discontinuity and, finally, a slow wave of the "supercompressed" detonation. Analogous results are obtained for the shock wave of the ionization $q < 0$. Chapman-Jouguet waves, however, are impossible in this case. For a fast detonation wave in the Chapman-Jouguet point, it follows from the boundary conditions and (8) for the discontinuity of the specific volume that

$$\frac{\Delta V}{V_1} = -\frac{1}{c_1} \sqrt{2 \frac{\gamma-1}{\gamma+1} |q|} \left(1 - \frac{1}{c_1} \sqrt{\frac{(\gamma^2-1)|q|}{2}} \right), \quad (15)$$

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The jumps of velocity $\Delta^* V$ in the detonation wave were determined from (9) and (10).

$$\frac{\Delta^* V}{V_1} < -\frac{1}{c_1} \sqrt{2 \frac{\gamma-1}{\gamma+1} |q|} \left(1 - \frac{1}{c_1} \sqrt{\frac{(\gamma^2-1)|q|}{2}} \right) \quad (17)$$

$$\text{and } \frac{\Delta^* V}{V_1} < -\frac{|U_{1y}|}{c_1^2} \sqrt{\frac{2}{3} (\gamma-1) |q|} \quad (18)$$

hold for "supercompressed" detonations on fast and slow waves, respectively. Inequality (7) is automatically satisfied for detonation waves. The "supercompressed" detonation changes automatically into a Chapman-Jouguet detonation. (8) is automatically valid for impact ionization. Then, one obtains

$$\frac{\Delta^* V}{V_1} < -\frac{1}{c_1} \sqrt{2 \frac{\gamma-1}{\gamma+1} |q|} \quad (19)$$

$$\text{and } \frac{\Delta^* V}{V_1} < -\frac{|U_{1y}|}{c_1^2} \sqrt{\frac{2}{3} (\gamma-1) |q|} \quad (20)$$

for fast and slow ionization waves, respectively. Figs. 1,3,4 show the various possible types of magnetohydrodynamic waves corresponding to detonation or ionization shock waves. In these figures, the longitudinal

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Impact ionization and...

component u_x of the piston velocity is plotted on the abscissa, and the transverse component u_y on the ordinate. The letters Δ , Δ_0 , Π , Y , P , and A in this order indicate a "supercompressed" detonation, a detonation in the Chapman-Jouguet point, the shock wave of ionization, the shock wave, the expansion wave, and the Alfvén discontinuity. The plus and the minus sign refer to a fast and a slow wave, respectively. Formulas for the boundary lines between the individual regions are finally presented:

Линии $\Delta_0^+P^-$, $\Delta_0^+Y^-$, $\Delta_0^+AY^-$, $\Delta_0^+AP^-$

$$u_x + \frac{U_s(u_y - 2U_y) u_y}{2c^2} - \sqrt{\frac{2(\gamma-1)q}{\gamma+1}} = 0; \quad (21)$$

Линии $\Delta_0^+P^+$, Δ^+ , Y^+

$$u_y + \frac{U_s U_y u_x}{c^2} - \frac{(\gamma-1) U_s U_y (u_x^2 + 2q)}{2c^3} = 0; \quad (22)$$

Линии $\Delta_0^+P^+A$, Δ^+A , Y^+A

$$u_y - 2U_y - \frac{U_s u_x (1 - \frac{U_s}{c})}{c} + \frac{U_s [2(\gamma-1)q - (\gamma-1)u_x^2]}{4c^2} = 0; \quad (23)$$

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Impact ionization and...

$$u_x + \frac{U_p(u_p - 2U_y)u_y}{2c^2} = 0; \quad (24)$$

Линии A^- , H^-

$$u_x - \frac{U_p U_y u_y}{c^2} = 0; \quad (25)$$

Линии $A\bar{A}$, $A\bar{H}$

$$u_x + \frac{U_p U_y (u_p - 2U_y)}{c^2} = 0; \quad (26)$$

Линии $P^+ A\bar{A}_0$, $Y^+ A\bar{A}_0$

$$u_y + \frac{U_p U_y u_y}{c^2} - \sqrt{\frac{2|q|(\gamma-1)}{3}} - \frac{U_p U_y (\gamma-1) u_y^2}{2c^3} = 0; \quad (27)$$

Линии $P^+ A\bar{A}_0$, $Y^+ A\bar{A}_0$

$$u_y - \frac{U_p u_y}{c} - 2U_y + \sqrt{\frac{2|q|(\gamma-1)}{3}} + \frac{U_p U_y u_y}{c^2} - \frac{(2-\gamma) U_y u_y^2}{4c^2} = 0. \quad (28)$$

There are 4 figures and 16 references: 15 Soviet-bloc and 1 non-Soviet-bloc. The reference to the English-language publication reads as follows:
L.I.Sedov, Rev.Mod.Phys., 30, 1077, 1959.

Card 7/94

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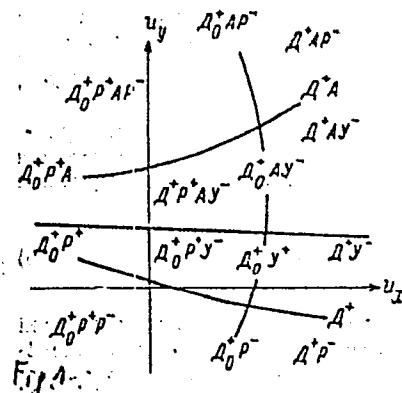
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B125/B205

Impact ionization and...

ASSOCIATION: Fiziko-tehnicheskiy institut AN USSR (Institute of Physics and Technology of the AS UkrSSR). Khar'kovskiy gosudarstvennyy universitet (Khar'kov State University)

SUBMITTED: June 29, 1960

Legend to Fig. 1: Possible modes of detonation on a fast wave. Letters in Figs. 1, 3, 4 explained above.



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B125/B102

26.Y3//

AUTHOR: Demutskiy, V. P.

TITLE: The Hugoniot adiabat in magnetohydrodynamics

PERIODICAL: Zhurnal tekhnicheskoy fiziki, v. 31, no. 11, 1961, 1392-1394

TEXT: The present paper deals with the calculation of the Hugoniot adiabat, $p_2^* = f(p_1^*, V_1; V_2)$, in magnetohydrodynamics ($p^* = p + (H^2/8\pi)$, p = pressure, $V \propto 1/q$, q = density) for processes with energy release ($q > 0$) and absorption ($q < 0$) in the case of weak magnetic fields ($U \ll c$, c = sonic velocity, $\vec{U} = \vec{H}/\sqrt{4\pi q}$ = Alfvén velocity) and low reaction energy ($|q| \ll c^2$, $|q| \ll U_y^2$). The y-plane lies in the plane of discontinuity. In magnetohydrodynamics, one has to decide between quick detonation and slow detonation and between ionization on a fast shock wave and ionization on a slow shock wave. Moreover, four types of combustion are possible: (1) quick combustion, (2) super-Alfvén combustion, (3) sub-Alfvén combustion, (4) slow combustion. The various types of detonation, ionization, and

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X

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The Hugoniot adiabat...

combustion correspond to certain sections of the Hugoniot adiabat (Fig. 1 for $q > 0$, and Fig. 2 for $q < 0$). The evolution and non-evolution ranges of this adiabat are marked by a solid and broken line, respectively. In magnetohydrodynamics, the points of contact (of the tangent drawn from the point corresponding to the initial state to the adiabat) correspond to such detonation and combustion at which the velocity of the front relative to the reaction products is equal to the velocity of the fast or slow magnetohydrodynamic wave (fast and slow detonation of Chapman-Jouguet). On the adiabat for the discontinuities with energy release ($q > 0$, Fig. 1), the section 0-10 corresponds to slow combustion; the section 14-15 to slow shocklike detonation; the section 15-4 to sub-Alfvén combustion; the section 4-16 to super-Alfvén combustion; the section 19-20 to fast shock-like detonation. Fig. 2 shows the Hugoniot adiabat for discontinuities with energy absorption ($q < 0$) on the discontinuity front (Fig. 2). The range 0-21 corresponds to slow combustion, the range 21-22 to slow impact ionization, the range 4-26 to sub-Alfvén combustion, 4-27 to super-Alfvén combustion, 31-30 to fast combustion, and 27-28 to a fast shock wave with ionization. R. V. Polovin and A. I. Akhiyezer are thanked for useful discussions. There are 2 figures and 9 references: 8 Soviet and 1 non-Soviet.

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25194
 S/056/61/040/006/015/031
 B111/B201

AUTHORS: Polovin, R. V., Demutskiy, V. P.

TITLE: Magnetohydrodynamic combustion

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 40,
no. 6, 1961, 1746 - 1754

TEXT: A study has been made of the effect of the magnetic field upon the combustion process. The general laws of conservation are valid along with the boundary conditions for the electromagnetic field:

$$\{(v_x - \zeta)/V\} = 0, \quad (7)$$

$$\{p + (v_x - \zeta)^2/V + H_y^2/8\pi\} = 0, \quad (8)$$

$$\{\gamma pV/(\gamma - 1) + (v_x - \zeta)^2/2 + v_y^2/2 + VH_y^2/4\pi - VH_xH_yv_y/4\pi(v_x - \zeta)\} = q, \quad (9)$$

$$\{(v_x - \zeta)v_y/V - H_xH_y/4\pi\} = 0, \quad (10)$$

$$\{H_xv_y - (v_x - \zeta)H_y\} = 0, \quad (11)$$

$$\{H_x\} = 0, \quad (12)$$

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B111/B201

Magnetohydrodynamic combustion

where $V = 1/\rho$, ρ is the propagation velocity of explosion waves in the laboratory system, q is the energy liberated on the combustion surface. These equations are not sufficient for the complete solution of the combustion process, since also the condition must be satisfied that the number of waves starting on both sides of the combustion surface be equal to the number of independent boundary conditions. On the basis of Fig. 1, the solution is discussed with respect to "slow", "subsonic", "supersonic", and "fast" combustions. In this connection, index 1 refers to the region in front of the explosion wave, while index 2 refers to the one behind it. Index x denotes the component of a given quantity in direction of the x-axis, the propagation direction of explosion waves. The signs + and - denote fast and slow waves, respectively. Furthermore,

$$U_{\pm} = \left\{ U^2 + c^2 \pm [(U^2 + c^2)^2 - 4c^2 U_x^2]^{1/2} \right\}^{1/2} / \sqrt{2} \quad (I), \text{ where } \vec{U} = \vec{H} / \sqrt{4\pi\rho}.$$

$$\text{From Eqs. (10), (11) } H_{2y} = \frac{\frac{1/\rho_1 - H_x^2}{4\pi j^2}}{\frac{1/\rho_2 - H_x^2}{4\pi j^2}} H_{1y} \quad (19) \text{ is derived, where }$$

$j = \beta_1 v_{1x} - \beta_2 v_{2x}$. The sign of H_y is found not to change in any of the four

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Magnetohydrodynamic combustion...

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possible combustion forms. The problem is examined as to which magnetohydrodynamic waves are likely to accompany the combustion waves. The medium is assumed to be ideally conductive and to move with the velocity \vec{u} . Piston and Alfvén velocities have to be much lower than the velocity of sound, and the liberated energy q has to be much lower than the square of the velocity of sound. Fig. 2a presents the possible magnetohydrodynamic waves in case of a "fast" combustion, Fig. 2b in case of a "supersonic" one, Fig. 2c in case of a "subsonic" one, and Fig. 2d in case of a "slow" combustion, where u_x denotes the longitudinal component of the piston velocity, u_y the transverse component. The letters F, Y, P, A denote respectively: combustion waves, shock waves, dilution waves, Alfvén explosion waves. Here again, the signs + and - refer to "fast" and "slow" waves. Equations for the curves concerned are given for all four cases. A. I. Akhiyezer is thanked for useful discussions. There are 5 figures and 20 references: 14 Soviet-bloc and 6 non-Soviet-bloc.

ASSOCIATION: Fiziko-tehnicheskiy institut Akademii nauk Ukrainskoy SSR
(Institute of Physics and Technology, Academy of Sciences
Ukrainskaya SSR)

Card 3/83

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24.4300

AUTHOR: Demutskiy, V. P.

TITLE: Detonation and combustion in magnetohydrodynamics

PERIODICAL: Zhurnal tekhnicheskoy fiziki, v. 32, no. 4, 1962, 445-449

TEXT: The propagation of detonation and combustion waves in a tube sealed at one end is investigated on the assumption of a sufficiently small magnetic field ($U \ll c$, where U and c are the Alfvèn and sound velocities, respectively) and sufficiently high reaction energies ($q \gg c^2$). Velocity discontinuities in shock and self-similating waves are calculated. The formula for fast shock waves reads

$$\left. \begin{aligned} \Delta_+ v_x &= \frac{2}{\gamma + 1} \frac{v_{1x}^2 - c_1^2}{v_{1x}}, \\ \Delta_+ v_y &= -2 \frac{U_{1x} U_{1y}}{v_{1x}} \frac{v_{1x}^2 - c_1^2}{(\gamma - 1)v_{1x}^2 + 2c_1^2} \end{aligned} \right\} \quad (2)$$

(subscripts 1 and 2 refer to the zones before and behind the wave front, respectively); for fast self-similating waves:

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Detonation and combustion in ...

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$$\Delta_+ v_x = -\frac{2}{\gamma-1} (c_1 - c_2), \quad (2a),$$

$$\Delta_+ v_y = U_{1y} \left(\frac{c_1}{U_{1x}} \right)^{-\frac{1}{\gamma}} \gamma^{-1} \int_{r_1}^{\infty} r^{-\frac{\gamma+1}{2\gamma}} (r-1)^{-\frac{\gamma-1}{\gamma}} dr,$$

where $r = c^2/U_x^2$; for the Alfvén wave: $\Delta_A v_x = 0$; $\Delta_A v_y = 2U_{1y}$; and for slow waves:

$$\Delta_- v_x = -U_{1x} \frac{\Delta_- V}{V_1}; \quad \Delta_- v_y = U_{1y} \left[1 - \sqrt{1 + 2 \frac{c_1}{U_{1y}^2} \frac{\Delta_- V}{V_1}} \right]. \quad V \text{ is the}$$

specific volume, the subscripts "+" and "-" denote fast and slow waves, respectively. The magnetic field reduces the discontinuities of the specific volume and of the longitudinal velocity component, but causes the detonation waves to propagate faster than in ordinary hydrodynamics. The slow waves are rarefaction waves, and an Alfvén discontinuity does not exist. A fast detonation wave gives rise to one fast and one slow rarefaction wave, which is symbolically expressed by $D_0 P^+ P^-$. Slow detonation waves are nonexistent. If f denotes the velocity of the combustion wave front relative to the medium immediately in front of the wave, then

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Detonation and combustion in ...

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$\vec{f}_- \geq \vec{f} > \vec{f}_+$. $\vec{f} > \vec{f}_+$ denotes a fast combustion wave, and $\vec{f} \leq \vec{f}_-$ denotes a "super-Alfvén", "sub-Alfvén", or slow combustion. Alfvén combustion waves cannot occur. A combustion wave (G) is followed by GP⁺P⁻ waves. If, due to heat conduction, combustion occurs, UGP⁻ waves will arise behind a shock wave (U), and U⁺U⁻G waves behind a slow combustion wave, which may occur with a sufficiently strong magnetic field. A. I. Akhiyezer and R. V. Polovin are thanked for discussions.

ASSOCIATION: Khar'kovskiy gosudarstvennyy universitet (Khar'kov State University)

SUBMITTED: May 27, 1961

Card 3/3

DEM'YAKOV, NIKOLAY VLADIMIROVICH

Kholodil'nyye Mashiny i Sooruzheniya, (by) N. V. Dem'yakov (1) V. A. Abramov.
Moskva, Transzheldorizdat, 1959.

434 P. Diagrs., Graphs, Tables.

Bibliography: P. 430-431.

DRUKAREV, Grigoriy Filippovich; DEMYAKOV, Yu.N., red.; ANDRUSHCHENKO,
A.S., red.; LUK'YANOV, A.A., tekhn. red.

[Theory of electron-atom collisions] Teoriia stolknovenii
elektronov s atomami. Moskva, Fizmatgiz, 1963. 219 p.
(MIRA 17:1)

DEM'YANENKO, A.I.; CHALOV, I.V.

Practice of using hydrocyclones for the thickening and
classification of hydrate pulps. TSvet. met. 37 no.6:83-85
Je '64. (MIR 17:9)

DEM'YANCHENKO, A.G.; YEVTYANOV, S.I.

Frequency divider using a converter and amplifier.
Radiotekhnika 17 no.10:25-34 0 '62. (MIRA 15:9)

1. Deystvitel'nyye chleny Nauchno-tekhnicheskogo
obshchestva radiotekhniki i elektrosvyazi imeni Popova.
(Frequency changers)

DEM'YANCHENKO, G. F., SHCHERBOVICH, I. A. (deceased), and AKRAMOVSKIY, M. N.

Ispytaniye leechayushchey cecysty kremneftoristoricheskikh naftovykh i gornochalodil'skikh
loshadey, "Works on Helminthology" on the 75th Birthday of K. Z. Skryabin, Tsentral',
Akad. Nauk. SSSR, 1953, page 801
Chair Parasitology, Vitebsk Veterinary Inst. and Lab. Helminthology Belorussian
Sci. Res. Veterinary Station

USSR / Zooparasitology. Mites and Insects as Disease Vectors. G

Abs Jour : Ref Zhur - Biol., No 12, 1958, № 53035

Author : Denyanchenko, G. F.

Inst : All-Union Scientific Research Institute of Veterinary Sanitation and Ectoparasitology.

Title : Experimental Destruction of Midge Larvae (Family Simuliidae) in Small Reservoirs.

Orig Pub : Byul. nauchno-tekh. inform. Vses. n.-i. in-t vet. sanitarii i ektoparazitol., 1957, No. 2, 20-21.

Abstract : No abstract.

Card 1/1

DEM' YANCHENKO, G.F., aspirant

Material on the species and the seasonal and daily activity
of ectoparasitic black flies (Simuliidae) found on farm animals
in White Russian Poles'ye. Trudy VNIIIVS 12:77-90 '57.
(MIRA 11:12)

1. Laboratoriya entomologii i dezinfektsii Vsesoyuznogo
nauchno-issledovatel'skogo instituta veterinarnoy sanitarii
i ektoparazitologii.
(White Russia--Black flies)

USSR / Diseases of Farm Animals. Arachno-Entomoses.

R

Abs Jour : Ref Zhur - Biol., No 22, 1958, No 101384

Author : Dem'yanchenko, G. F.

Inst : All-Union Scientific Research Institute of Veterinary Sanitation and Ectoparasitology.

Title : The Toxicity of Black-Fly (Simuliidae) Saliva upon the Organism of Farm Animals.

Orig Pub : Tr. Vses. n.-i. in-ta vet. sanitarii i ektoparazitol., 1957, 12, 91-104

Abstract : When bull calves under test conditions were subjected to a mass attack by *Eusimulium pusilla* flies, the following phenomena were observed: rise of body temperature, blood changes characterized by a decrease of Hb content and of erythrocyte count, quantitative increase of stabnuclear leukocytes, decrease of lymphocyte count, and complete disappearance of monocytes. When an emulsion prepared from thoracic

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USSR / Diseases of Farm Animals. Arachno-Entomoses.

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Abs Jour : Ref Zhur - Biol., No 22, 1958, No 101384

sections of black-flies was intracutaneously injected into calves, a distinct localized inflammatory reaction, as well as a general organic reaction, could be observed. When the emulsion was given intravenously, an even stronger reaction ensued. Thus, toxin is formed in the salivary glands of the given species of black-flies, which causes intoxication in animals bitten by them, on a large scale. -- I. Ya. Panchenko.

Card 2/2

27

DEM'YANCHENKO, G.F., Cand Vet Sci -- (diss) "Blood-sucking
midges (family Simuliidae) of the Belorussian Poles'ye and
measures for controlling them." Mos, 1958, 15 pp (Min of
Higher Ed. USSR. Mos Technological Inst ~~of~~ Meat and
Dairy Industry) 200 copies (KL, 42-58, 117)

- 53 -

DEM'YANCHENKO, G. F.

"On Belorussian Horseflies."

Tenth Conference on Parasitological Problems and Diseases with Natural Reservoirs, 22-29 October 1959, Vol. II, Publishing House of Academy of Sciences, USSR, Moscow-Leningrad, 1959.

Scientific Research Institute of Veterinary Medicine, Academy of Agricultural Science, Belorussian SSR (Minsk)

DEM'YANCHENKO, G.P., kand. veterinarnykh nauk

Bloodsucking midges of the family Simuliidae as ectoparasites of
farm animals. Veterinariia 36 no.4:72-75 Ap '59.
(MIRA 12:7)

1.Belorusskiy nauchno-issledovatel'skiy veterinarnyy institut.
(White Russia--Black flies)
(Insecticides)

DEM'YANCHENKO, G. F., MORDASOV, P. M., BITIYUKOV, P. A., KIREBTOVICH, Ye. ~~JK~~ G.,
MAYEVSKIY, A. D., SYT'KO, V. P. and ARTYUSHENYA, A. N.

"Simultaneous prevention of cattle ~~gut~~ against ixode ticks and blood-sucking insects."

Veterinariya, Vol. 37, No. 4, 1960, p. 81

Demyanchenko - NIVI - ASKhN - BSSR

DEM'YANCHENKO, G.F., kand.veterin.nauk

Character of the infestation of agricultural animals by
black flies (family Simuliidae). Trudy NIVI 1:105-109 '60.
(MIRA 15:10)
(Black flies) (Cattle—Diseases and pests)
(Horses—Diseases and pests)

DEM'YANCHENKO, G.F., kand.veterin.nauk

Horseflies (Tabanidae) in the central zone of White Russia and
the measures for controlling them. Trudy NIVI 1:110-115 '60.
(MIRA 15:10)

(White Russia—Horseflies)

DEM'YANCHENKO, G. F., kand.veterin.nauk

Experimental study of the toxicity of the saliva from black
flies (family Simuliidae) on colts and lambs. Trudy NIVI 1:116-131
1960. (MIRA 15:10)

(Black flies) (Saliva)
(Veterinary parasitology)

DEM'YANCHENKO, G.F., kand.veterin.nauk; CHEBOTAREV, R.S., akademik;
CHUNGSOV, M.N.

Parasitological situation in the White Russian S. S. R. Trudy
1:204-210 '60. (MIRA 15:10)

1. Akademiya sel'skokhozyaystvennykh nauk Belorusskoy SSR.
(White Russia—Veterinary parasitology)

DEM'YANCHENKO, G.E.; MORDASOV, P.M.; BITYUKOV, P.A.; KHREBTOVICH, Ye.G.;
MAYEVSKIY, A.D., veterinarnyy vrach; SYT'KOV, V.P., veterinar-
nyy fel'dsher; ARTYUSHENYA, A.N., veterinarnyy fel'dsher.

Simultaneous protection of cattle from ixodid ticks and blood-
sucking insects. Veterinariia 37 no.4:81-82 Ap'60.

(MIRA 16:6)

1. Nauchno-issledovatel'skiy veterinatnyy institut Akademii
sel'skokhozyaystvennykh nauk SSSR (for Dem'yanchenko, Mordasov,
Bityukov). 2. Glavnyy veterinarnyy vrach sel'skokhozyaystvennoy
inspeksii Glusskogo rayona (for Khrebtovich). 3. Glusskaya
rayonnaya veterinarnaya lechebnitsa (for Mayevskiy)
(INSECT BAITS AND REPELLENTS) (PARASITES--CATTLE)

DEM'YANCHENKO, G.V.

AL'TERMAN, Ya.L., kandidat tekhnicheskikh nauk; BAZILEVICH, S.N.;
DEM'YANCHENKO, G.V., inzhener.

Remote power level indicator. Vest. sviazi 15 no.2:10 F'55.
(MLRA 8:3)

1. Nachal'nik laboratorii NII MRTP (for Al'terman). 2. Inzhe-
ner NII MRTP (for Bazilevich). 3. Nachal'nik laboratorii
TSNIIS (for Dem'yachenko).
(Telephone--Apparatus and supplies)

AL'TERMAN, Ya.L., inzhener; DEM'YANCHENKO, G.V., inzhener; PARR, G.K.,
inzhener; TARAKANOVA, M.S., inzhener.

Measuring instrument stand for voice-frequency carrier telegraphic
apparatuses. Vest.sviazi 16 no.2:3-5 F '56. (MLRA 9:7)
(Telegraph--Apparatus and supplies)

УДК 621.372.57

ASKINAZI, A.A., inzhener; DEM'YANCHENKO, G.V., inzhener; L'VOV, V.A., kand.
tekhn.nauk.

Type VI2-1 device for measuring frequency characteristics of cross-
talk attenuation. Vest.sviazi 16 no.10:7-9 0 '56. (MIRA 10:10)

1. Mladshiy nauchnyy sotrudnik TSentral'nogo nauchno-issledovatel'skogo
instituta svyazi (for Askinazi).
2. Nachal'ni laboratorii TSentral'nogo
nauchno-issledovatel'skogo instituta svyazi (for Dem'yanchenko).
3. Starshiy nauchnyy sotrudnik TSentral'nogo nauchno-issledovatel'skogo
instituta svyazi (for L'vov).

(Frequency measurements) (Electric cables)

DEM'YANCHENKO, G.V., inzhener,

Overcome the lag in the development and manufacture of
measuring instruments. Vest.sviazi 16 no.3:11-12 Mr '56.
(MIRA 9:?)

1.Nachal'nik laboratorii TSentral'nogo nauchno-issledovatel's-
kogo instituta svyazi.
(Electric instruments)

DEM'YANCHENKO, G.V.

111-9-7/28

AUTHOR: Dem'yanchenko, G.V., Engineer, Supervisor of the TsNIISa Laboratory

TITLE: Impulse Instrument "УИП-4К" for Determining Heterogeneities of the Wave Impedance of a Coaxial Cable (Impul'snyy pribor tipa "УИП-4К" dlya opredeleniya neodnorodnostey volnovogo sопротивленiya koaksial'nogo kabelya)

PERIODICAL: Vestnik Svyazi, 1957, Nr. 9, pp 7-10 (USSR)

ABSTRACT: This article deals with the new universal impulse instrument having the following base-characteristics:
1) The sweep-time assures a visual survey of the characteristics of cables of up to 9 km in length and gives the possibility of exploring cable-sections having a length of 200 - 1,000 m.
2) Cosine-shaped probing impulses having a sweep-time of 0.12 and 0.4 microseconds are used in the instrument.
3) The sensibility of the instrument is higher than 0.05 ohm per 10 mm length of the cathode ray tube.
4) It is designated for measurements on cables having a wave impedance of $75 \text{ ohms} \pm 10\%$. It is equipped with a loading circuit having a wave impedance of 75 ohms, variable within

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Impulse Instrument "УИИ-4К" for Determining Heterogeneities of the Wave Impedance of a Coaxial Cable

- the limits of $\pm 0,7$ ohm.
- 5) The measuring accuracy of the heterogeneity-value of the wave impedance is about $\pm 0,05$ ohm. In certain cases, this accuracy attains $\pm (0.02 - 0.03)$ ohm, for instance: when the heterogeneities of the wave impedance are measured near the place, where the loading circuit is inserted.
- 6) The accuracy of location of the place, where the heterogeneity is stated, depends on the nature and the magnitude of the same and also on other factors.
For cable lengths of 1,000 m, the location of heterogeneities of about 0,5 ohm and more can be effected with an accuracy of at least 10 m.
- 7) The sensibility of the instrument can be calibrated.
- 8) At the instrument screen, calibrating marks can be obtained in form of a sine curve, the cycle of which corresponds to the cable length of 20 m.
For reading the values of distances from the place of heterogeneity, the instrument contains a calibrating mark oscillator producing a sine voltage having a frequency of 7 megacycles.

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111-9-7/28

Impulse Instrument "УИП-4К" for Determining Heterogeneities of the Wave Impedance of a Coaxial Cable

This oscillator contains a twin triode and operates by shock excitation. The instrument has an a.c. network power supply of 50 cps and 110, 127 and 220 v, its dissipated power is about 350 watts and it is contained in two housings. The instrument itself weighs 20 kg and its power supply block about 30 kg. The power supply of the cathode ray tube is achieved by a conventional circuit. The high voltage rectifier consists of selenium columns. The block diagram of the "УИП-4К" instrument is shown by Figure 1, its circuit diagram by Figure 2. All the blocks are rigidly synchronized by the leading oscillator producing a sine voltage at a frequency of 10 kilocycles. The phase-inverting device is inserted into a RC measuring-bridge and assures a phase shift of 360°. For exploring the reflection of small heterogeneities, the instrument contains a 6-stage reflex-impulse amplifier having a great amplification factor and resistors with simple correction. Its first three stages are operating with "6Ж1П" type tubes, the fourth one (phase inverting) with the "6Ж4" type tube and the two final stages work with "6П9" tubes in the push-pull system. This amplifier

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111-9-7/28

Impulse Instrument "УИП-4К" for Determining Heterogeneities of the Wave Impedance of a Coaxial Cable

provides a pass-band indispensable for a satisfactory reproduction of the cosine-shaped impulse having a sweep-time of 0.12 microseconds. The experimental work shops of the Central Scientific Research Institute of the USSR Ministry of Communications have manufactured an experimental series of these instruments.

This article contains 6 diagrams and 2 photos.

ASSOCIATION: The Central Scientific Research Institute of the USSR Ministry of Communications (Tsentral'nyy nauchno-issledovatel'skiy institut Ministerstva svyazi SSSR)

AVAILABLE: Library of Congress

Card 4/4

DEM'YANCHENKO, Georgiy Vasili'yevich; KIRILLOV, Yevgeniy Vladimirovich;
SHISHKINA, E.I., otv.red.; KONDRASHINA, N.M., red.; SHIFER,
G.I., tekhn.red.

[Measuring apparatus used in wire communication systems]
Izmeritel'naya apparatura, primenяemaya v provodnoi sviazi.
Moskva, Gos.izd-vo lit-ry po voprosam sviazi i radio, 1960.
101 p. (MIRA 14:3)
(Electronic measurements) (Telephone lines)

KOSOLAPENKO, Georgiy Borisovich; MIL'YKOVSKIY, Solomon Gerasimovich; DEM'YA-
CHENKO, G.V., qtv. red.; PETROVA, V.Ye., red.; MARKOCH, K.G., tekhn.
red.

[Specialized measurements in wire communications] Spetsial'nye iz-
mereniia v provodnoi sviazi. Moskva, Gos. izd-vo lit-ry po voprosam
sviazi i radio, 1961. 332 p. (MIRA 14:7)
(Telephone) (Telegraph) (Electronic measurements)

DEM'YANCHENKO, G.V.

Modernization of the UNP-2 interferometer. Vest. sviazi 21 no.12:
11-13 D '61. (MIRA 14:12)

1. Nachal'nik laboratorii TSentral'nogo nauchno-issledovatel'skogo
instituta svyazi Ministerstva svyazi SSSR.
(Radio--Interference) (Radio measurements)
(Telephone lines--Measurement)

KUELANOVSKIY, Yakov Solomonovich; SARIBAN, Mark Mikhaylovich;
DEM'YANCHENKO, Georgiy Vasil'yevich; LYUSTIBERG, V.F.,
inzh., ved. red.; PONOMAREV, V.A., tekhn. red.

[Klystron generator. UIP-4K impulse device for determining the uniformity of the characteristic impedance of a coaxial cable] Klystronnyi generator. Impul'snyi pribor UIP-4k dlja opredelenija odnorodnosti volnovogo soprotivlenija koaksial'nogo kabelia. [By] G.V.Dem'ianchenko. Moskva, Filial Vses. in-ta nauchn. i tekhn. informatsii, 1958. 14 p. (Perevodoi nauchno-tehnicheskii i proizvodstvennyi optyt. Tema 36. No.P-58-36/9) (MIRA 16:3)
(Klystrons) (Coaxial cables--Measurement)

DEM'YANCHENKO, G.V.

Prospects of measuring techniques in long-distance wire communication lines. Vest. sviazi 25 no.3:3-5 Mr '65.

(NIRA 18:5)

1. Nachal'nik laboratorii TSentral'nogo nauchno-issledovatel'skogo instituta sviazi.

SUKHOVA, M.N.; YEROFEYEVA, T.V.; GVOZDEVA, I.V.; NIKIFOROVA, N.F.; DOTSENKO, T.K.; DEM'YANCHENKO, R.P.; BIRALO, T.I.; SERAFIMOVA, A.M.; MOSUNOV, V.B.; SAMEONOVA, A.M.; STOROZHEVA, Ya.M.; SURCHAKOV, A.V.

Methods of applying insecticides to control synanthropic flies.
Zhur.mikrobiol., epid.i immun. 33 no.8:15-19 Ag '62.
(MIRA 15:10)

1. Iz TSentral'nogo nauchno-issledovatel'skogo dezinfektsionnogo instituta Ministerstva zdravookhraneniya SSSR, Mytishchinskoy gorodskoy sanitarno-epidemiologicheskoy stantsii, Kuybyshevskogo instituta epidemiologii i mikrobiologii, Minskoy gorodskoy dezinfektsionnoy stantsii, Brestsckoy sanitarno-epidemiologicheskoy stantsii, Tashkentskoy gorodskoy dezinfektsionnoy stantsii i Tashkentskoy gorodskoy sanitarno-epidemiologicheskoy stantsii.
(INSECTICIDES) (FLIES--EXTERMINATION)

DEM'YANCHIK, A.I. (Leningrad)

Fast magnetic amplifiers for A.C.meter servomechanisms. Avtom.i
telem.17 no.3:250-263 Mr '56. (MIRA 9:7)
(Magnetic amplifiers) (Servomechanisms)

1. B. I. DEM'YANCHIK
2. USSR (600)
4. Bluegrass
7. Fowl bluegrass (*Poa palustria*) is a valuable forage plant. Korm. baza
4 no. 1. 1953.
9. Monthly List of Russian Accessions, Library of Congress, April 1953, Uncl.

DEMIYANCHIK, B.I.

USSR/Cultivated Plants - Fodders.

L-4

Abs Jour : Ref Zhur - Biologiya, No 16, 25 Aug 1957, 69265

Author : Demiyanichik, B.I., Danilevskaya, M.S.

Inst :

Title : Agrotechnical Problems of Seed Cultivation of Perennial Grasses on Drained Peatmoss.

Orig Pub : Nauch. tr. Ukr. n.-i. in-t gidrotekhn. i melior., 1956,
No 77/3, 193-203

Abst : The usefulness of lowland peatmoss for seed germination of perennial grasses was established by experiments of the Sarnensk scientific-experimental station in utilization of marshes, conducted in the northern part of Rovensk district in 1946 to 1947 and 1950 to 1954. The seeds of local herbaceous grasses produce larger yields than imported seeds. A considerable effect on increase of yield is exerted by mineral fertilizers-- K, P and Cu. Those which need Cu most for seed germination are

Card 1/2

USSR/Cultivated Plants - Fodders.

L-4

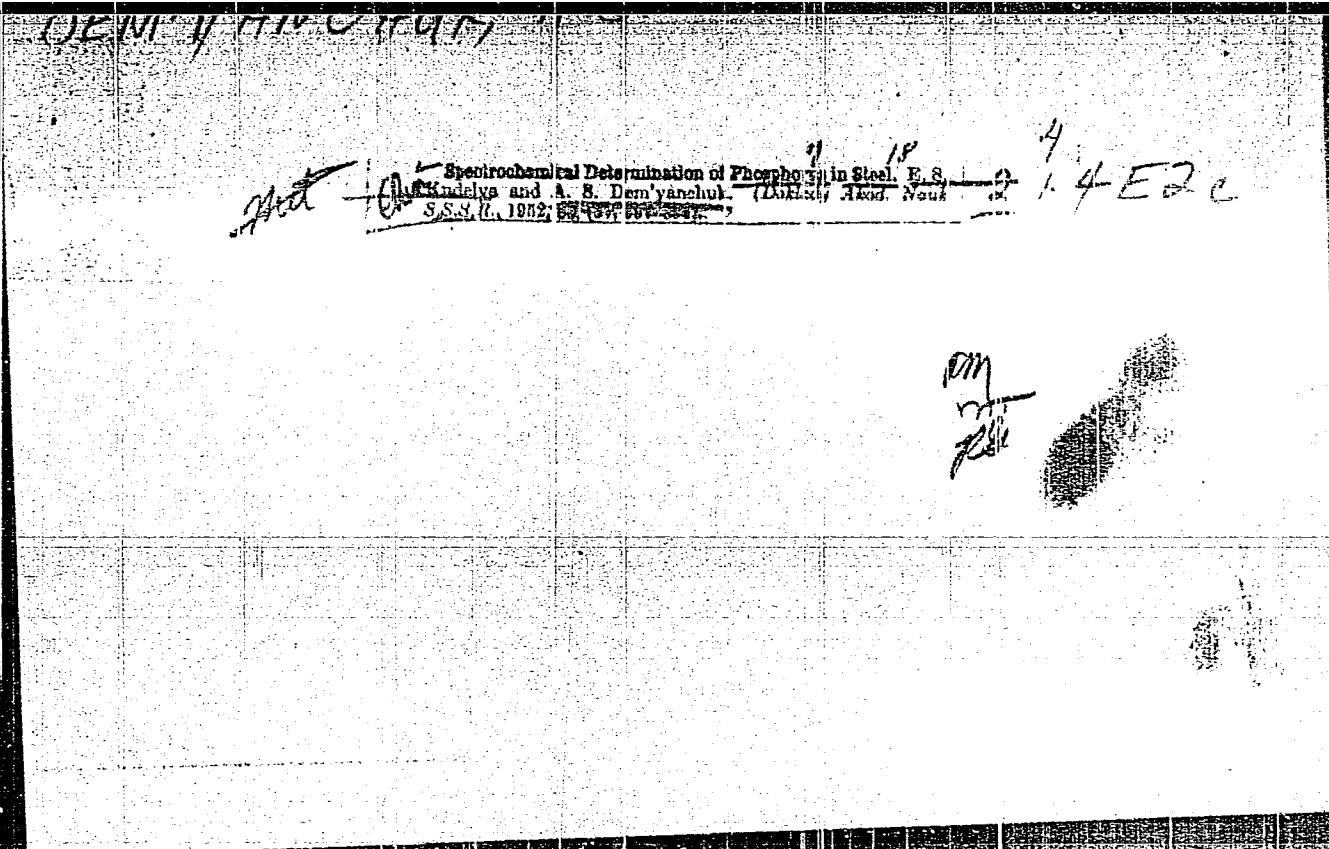
Abs Jour : Ref Znur - Biologiya, No 16, 25 Aug 1957, 69265

meadow fescue, awnless, meadow grass, meadow timothy
grass, and "bekmania".

Card 2/2

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DEM'YANCHUK, A. S.

USSR/Metallurgy - Steel, Spectrum Analysis Jan/Feb 53

"Determination of Small Quantities of Carbon in Steels and Welds by the Method of Spectrum Analysis," Ye. S. Kudelya, A. S. Dem'yanchuk, Scientific Workers, Inst of Electric Welding im Ye. O. Paton

Avtomat Svarka, No 1, pp 19-26

Describes method developed by authors for spectrum detn of C in range of content from 0.03 to 0.15%. Method uses permanent Mg electrode. Mg hampers

275T43

formation of thick oxide films, decreases oxidation of C reducing diffusion of its gaseous products of oxidation into atm. As a result, number of C atoms in discharge zone increases and intensity of C analytical line grows. Method is applicable in case of presence in steel of up to 2% Ni.

MEDOVAR, B.I.; KUDELYA, Ye.S.; DEM'YANCHUK, A.S.

On a peculiarity of producing two-layer steel with an anti-corrosive
coating. Avtom.svar.6 no.6:20-26 N-D '53. (MIRA 8:4)

1. Institut elektrosvarki im. Ye.O.Patona Akademii nauk URSS,
(Steel-Welding)

DEM'YANCHUK, A.S.

Spectral determination of carbon in steels, cast irons and wear-resistant alloys. Avtom.svar.6 no.6:56-59 N-D '53. (MIRA 8:4)

1. Institut elektrosvarki im. Ye.O.Patona Akademii nauk URSR.
(Stell--Analysis) (Iron--Analysis) (Alloys--Analysis)

DEM'YANCHUK, A.S.

The effect of gas-oxygen cutting on the surface of the cut.
A. F. Arsh and A. S. Dem'yanchuk. Astanov. Sverka 7,
No. 3 (Whole No. 38), 61-73 (1953). In an investigation of
the effect of oxy-gas cutting of low-C and alloy steels it was
found that the high-cutting temps. cause a pick-up of C,
Ni, and Cu in the cutting area. Simultaneously the concen.
of Mo, Si, and Cr shows a significant decrease. For a 0.17%
C steel the C content increases to 0.10-0.80% in the vicinity
of the cut edge. In a low-alloy steel the Ni increased from
3.5 to 30.6%. Preheating tends to prevent the pick-up of
C, Ni, and Cu. J. R. Behman.

62

(1)

USSR/ Chemistry - Analysis methods

Card 1/1 Pub. 43 - 59/97

Authors : Kudelya, E. S.; Demyanchuk, A. S.; and Ryabushko, O. P.

Title : Determination of phosphorus in steel and stannous-phosphorous bronzes by means of a styloscope

Periodical : Izv. AN SSSR. Ser. fiz. 18/2, page 279, Mar-Apr 1954

Abstract : A method was developed for styloscopic determination of phosphorus in steel and in stannous-phosphorous bronzes. The accuracy of the method varies between 0.02 and 0.03% in the case of steel and 0.05 to 1.0% in the case of bronze.

Institution : Academy of Sciences Ukr-SSR, The E. O. Paton Electrical Welding Institute

Submitted :

DEM'YANCHUK, A.S.

USSR/Engineering - Metallurgy

Card 1/1 Pub. 11- 10/11

Authors : Asnis, A. Ye., and Dem'yanchuk, A. S.

Title : The problem of diffusion of carbon to the surface of fused metal during oxygen cutting and welding

Periodical : Avtom. svar. 3, 98-102, May-June 1955

Abstract : Experiments were conducted to determine the diffusion of carbon to fused metal during oxygen cutting and welding, and to determine the influence of the rate of cooling of specimens on the chemical composition of metal. Chemical composition of steel specimens is given, and tests are briefly described. Ten references: 8 USSR, 1 German, and 1 USA (1929-1955). Illustrations; drawing; table.

Institution: Acad. of Sc., Ukr. SSR, Ye. O. Paton's Institute of Electric Welding

Submitted : January 15, 1955

Dem'YANCHUK, A.S.

AN

Spectral analysis of welds of certain copper and aluminum alloys. R. S. Kudelya and A. S. Dem'Yanchuk. Avtomat. Svarka 8, No. 2, 55-62 (1955). A method is developed for the detn. of Al, Si, Mn, Pb, Sn, and Zn in Cu alloys and welds by means of spectroanalysis. Similarly, a method is given for detg: Fe, Si, Ca, Mg, Cu, and Ti in welds of Al alloys. Adjustments in calibration were required when it was found that a Zn content of 10-12% in Cu alloys had a definite weakening effect on the lines for other elements.

J. R. Behrman

ppm

①2f

KUDELYA, Ye.S.; DEM'YANCHUK, A.S.

Spectrochemical determination of carbon in iron alloys. Izv. AN
SSSR Ser.fiz.19 no.2:150-151 Mr-Ap '55. (MLR 9:1)

1.Institut elektrosvarki imeni Ye.A.Patona Akademii nauk USSR.
(Tartu---Spectrum analysis--Congresses)

Dem'yanchuk, A.S.

24(7)

PLATE I BOOK INVENTORY

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USSR. Universitet
Materialy i Postroenija Soveshchaniya po spektroskopii, 1956.
V. II. Atomnaya spektroskopiya (Materials of the 10th All-Union Conference on Spectroscopy, 1956, Vol. 2; Atomic Spectroscopy)
Doplyenie po Spektroskopii, 1958. 568 p. (Series: Itogi Nauki i Tekhniki. Ser. 17. Vsesoyuznye soveshchaniya i vystavki, vyp. 3(5); 3,000 copies printed.)

Additional Sponsoring Agency: Akademiya nauk SSSR. Rukodeliya po spektroskopii.

Editorial Board: G.S. Landsberg, Academician (Bep. Nk);
B.S. Repovt, Doctor of Physical and Mathematical Sciences;
I.L. Pashinskii, Doctor of Physical and Mathematical Sciences;
V.G. Fabrikant, Doctor of Physical and Mathematical Sciences;
V.G. Koritnik, Candidate of Technical Sciences; L.V. Filimonovskaya,
Candidate of Physical and Mathematical Sciences; V.S. Miliyanchik,
(candidate), Doctor of Physical and Mathematical Sciences; A.Ye.
Golubev, Doctor of Physical and Mathematical Sciences;
M.I. S.N. Goryainov, Doctor of Technical Sciences; T.V. Saranyuk.

Purpose: This book is intended for scientists and researchers in the field of spectroscopy, as well as for technical personnel

using spectrum analysis in various industries.

Contents: This volume contains 177 scientific and technical studies of atomic spectrography presented at the 10th All-Union Conference on Spectroscopy in 1956. The studies were carried out by members of scientific and technical institutes and include extensive bibliographies of Soviet and other sources. The studies cover many phases of spectroscopy: spectra of rare earths, electromagnetic radiation, physical methods for controlling electron-atom interaction, production, physics and technology of gas discharge tubes, and spectroscopy, abnormal dispersion in metal vapors, optical and spectroscopy, and the combustion theory, spectrum analysis of ores, spectroscopy and the photographic methods for quantitative spectrum and atomic absorption, spectral determination of the analysis of metals and alloys, spectral analysis of isotopes, tables and hydrogen content of metals by means of isotopes, tables and atlases of spectral lines, spark spectrographic analysis, statistical study of variation in the parameters of calibration curves, determination of traces of metals, spectrum analysis in metallurgy, thermoochemistry, in metallurgy, and principles and practice of spectrochemical analysis.

card 2/31

Materials of the 10th All-Union Conference (cont'd.)
Suttorovich, I.M. Spectrum Analysis of Different Types of Products by One Calibration Curve 533
Dem'yanchuk, A.S. and Ye.S. Rudil'sh. Special Aspects of the Spectral Determination of Carbon, Phosphorus, and Sulfur in Metal Alloys 535
Shipilov, S.A. Effect of Development on the Measurement of Spectral Line Intensities 539
Spirkov, L.A. and V.S. Engel'sht. New Technique in the Use of Additives 543
Melnikov, V.V. Use of Mathematical Statistics in Analytical Work 546
Shvoronokina, T.K. and O.B. Pal'covs. Use of the Spectral Method for the Determination of Chlorine in Climatological Studies 549
Plisman, I.S. Spectrum Analysis With the Aid of Reference Curves 551
card 3c/31

DEM'YANCHUK, A.S.

ASNIS, A.Te.; DEM'YANCHUK, A.S.; MOVCHAN, B.A.; POZNYAK, L.A.

More on the problem of carbon diffusion toward the surface of
fused metal in oxyacetylene cutting. Avtom. svar. 9 no.6:83-86
N-D '56.
(MIRA 10:3)

1. Ordena Trudovogo Krasnogo Znameni Institut elektrosvarki im.
Ye.O.Patona. AN USSR.
(Gas welding and cutting) (Diffusion)

DEM'YANCHUK, A. S., Cand Phys-Math Sci -- (diss) "Certain
peculiarities of ^{the} spectral determination of carbon, sulfur,
and phosphorus in metal ^{alloys} ~~nickel~~ and in welded joints."
[Len], 1957. 16 pp with ill. (State Order of Lenin Optical
Inst im S. I. Vavilov), 125 copies. List of author's works
p 16 (13 titles) (KL, 52-57, 103)